

United States
Department of
Agriculture

Forest
Service

Moab Ranger District

125 West 200 South
Moab, Utah 84532

Reply to: 2810

Date: July 20, 1989

Utah Natural Resources
Division of Oil, Gas & Mining
Attn: Holland Shepherd
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

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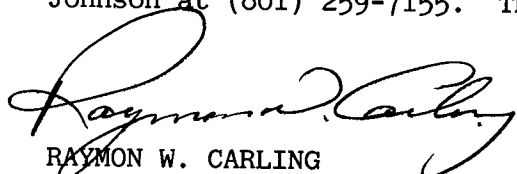
DIVISION OF
OIL, GAS & MINING

Dear Holland:

Enclosed is our Reclamation Evaluation Worksheet for the bond calculation for Umetco's Pandora Mine vent hole located on Forest Service lands in the NW 1/4 of section 5, T.29S., R.25E. We are requesting that \$11,500 be allocated from Umetco's existing bond currently in your possession for the reclamation bond amount required for this vent hole. This request is being made in accordance to our Memorandum of Understanding dated November 26, 1984; thus, eliminating double bonding of Umetco Minerals Corporation.

Reclamation of the disturbed sites will begin immediately after the vent hole is no longer needed. This bond can only be released upon the Forest Service's approval of the completed reclamation.

If you have any questions or concerns please feel free to contact me or Debbie Johnson at (801) 259-7155. Thank you for your cooperation.


RAYMON W. CARLING
District Ranger

Enclosure

RECLAMATION EVALUATION WORKSHEET

Umetco Minerals Corporation
Pandora Mine Vent Hole (1x), MLS4-2810-4/20/89

I. Road Work and Erosion Control	\$823
II. Fan and Concrete Pad Removal	\$390
III. Power Line Removal	\$296
IV. Backfilling of Vent Hole (1x)	\$5417
V. Revegetation Costs	\$391
VI. Clean Up	\$1689
VII. Transport	\$594
VIII. Administration	\$1920
Total	\$11,520
Rounded for Bonding	\$11,500

I. Road Work and Erosion Control

Work will include the installation of waterbars in approximately 1/2 mile of road. All berms will be pulled back across the the road, and all roads will be ripped and seeded.

A. Equipment - Dozer TD20 with ripper	\$75.48/hr
B. Labor Operator	\$31.66/hr
C. Work	

Ripping 2640 lin ft / 6000 ft / hr = 0.44hrs

Waterbars @ 200 ft spacing
2640 ft / 200/bar x 0.5 hr/bar = 6.6 hrs

Use 7 hrs x \$(75.48 + 32.66)/hr + \$66 = \$823

II. Fan and Concrete Pad Removal

Work will include removal of fan and 14 foot by 14 foot concrete pad.

A. Equipment - Loader one hour to break up and load Truck to haul away waste to vent hole already paid in vents	
B. Labor - 2 labors @ \$18.98/hr for one day pickup for transportation	
C. Work labor 2 ea x 8hrs x \$18.98 = \$320	

$$\text{loader 1hr} \times (\$37.86 + 3' \times 6)/\text{hr} = \$70$$

sub total

$$= \$390$$

III. Power Line Removal

Work will include removing power lines and poles. All holes will be backfilled and covered with top soil.

A. Equipment - Backhoe 510B \$22.65/hr

B. Labor - Operator \$31.66/hr
Labor \$18.98/hr

C. Work
1/2hr per pole
1/2 hr $\$(22.65 + 31.66 + 18.98)/\text{hr} = \$37/\text{pole}$
8 poles $\times \$37/\text{pole} = \296

IV. Backfilling of Vent Holes

Work will include backfilling the vent hole. The bottom of the vent hole will be backfilled with rip-rap covered with fines and an 5 foot slurry cement plug. Waste rock will then be backfilled on top of the plug to within 10 feet of the ground surface. Another 5 foot concrete plug will be placed to within 2 feet of the ground surface and the remainder will be covered with top soil.

A. Transportation

B. Equipment - Dump trucks (10yds) \$32.33/hr
Loader (2-1/2yds) \$38.45/hr
Backhoe (15-6 depth) \$22.65/hr

C. Labor - Drivers \$27.35 D.B. or \$10.12/hr E.R.
Loader operator \$31.66 D.B. or \$11.71 E.R.
Backhoe operator \$31.66 D.B. or \$11.71 E.R.

D. Time - One 10 hour day for a loader, backhoe, and 4 dump trucks

$$\text{Loader } 10 \text{ hrs} \times (\$37.86 + \$31.66)/\text{hr} / 611 \text{ yds} = \$1.14/\text{yd}$$

$$\text{Dump trucks } 4 \text{ ea} \times 10\text{hr} \times (\$32.33 + \$27.53)/\text{hr} / 611\text{yds} \times (3\text{mi})\text{mi} = \$1.31/\text{yd mi}$$

E. Work

Rip-rap

$$\begin{aligned} \text{Volume} &= h \times \pi \times r \times r / 3 \\ &= \{8\text{ft} + 6\text{ft} / 2 \times \tan 34\} \times 3.14 \times \\ &\quad \{[2 \times 8\text{ft} / \tan 34 + 6 \text{ft}] / 2\}^2 \end{aligned}$$

$$= 10 \text{ ft} \times 15 \text{ ft} \times 15 \text{ ft} \times \pi / 3 = 2356 \text{ cu ft}$$

$$= 87 \text{ cu yd}$$

base cost = \$1.50/yd
 royalty cost = \$0.30/yd
 loading cost = \$1.14/yd
 hauling cost =
 3 mi x \$1.31/yd mi = \$3.93/yd

sub total = \$6.87/yd loose x 134#/cu ft / 104#/cu ft = \$8.85/ yd inplace
 \$8.85/yd x 87 yd = \$770 / vent x 1 vent = \$770

Concrete plugs

$$\text{Volume} = h \times \pi \times r \times r$$

$$= 5 \text{ ft} \times 3.14 \times 3 \text{ ft} \times 3 \text{ ft}$$

$$= 141 \text{ cu ft} = 5 \text{ yds}$$

base cost = \$64.50/yd x 5 yds = \$322

hauling cost

\$3.00/ load mi x 34 mi = \$102

sub total = \$424 / plug x 2 plugs/vent x 1 vent = \$848

common fill

$$\text{Volume} = h \times \pi \times r \times r$$

$$= 500 \text{ ft} \times 3.14 \times 3 \text{ ft} \times 3 \text{ ft}$$

$$= 14137 \text{ cu ft} = 524 \text{ cu yd}$$

royalty cost = \$0.30/yd

load cost = \$1.14/yd

hauling cost

\$1.31/yd x 3 mi = \$3.93/yd

backhoe

8 hr (\$22.65+11.71)/hr/524yd = \$0.52/yd

sub total \$5.89/yd x 128# cu ft / 104#/cu ft = \$7.25/yd
 524 yd vent x \$7.25/yd x 1 vent = \$3799

V. Revegetation Costs

Work will include revegetation of all disturbed sites, including the roads, the power lines, the cutting catch ponds, and the vent hole sites. These areas will be recontoured and reseeded, and vehicle traffic over the reclaimed sites will be prohibited.

Area to be disturbed 1.5 acres.

A. Seed Cost

<u>Species</u>	<u>lb/acre</u>	<u>cost/lb</u>	<u>cost/1.5 acres</u>
Crested Wheatgrass	3	\$2.00	\$9.00
Orchard Grass	2	2.00	6.00
Intermediate Wheatgrass	2	2.00	6.00
Yellow Sweet Clover	1/2	2.00	1.50
Ladak Alfalfa	1/2	2.0	1.50
Total			\$ 24.00

B. Labor 1 days 2 labors 2 ea x 8 hrs @ \$18.98 = \$304

C. Transportation: 1 round trips @ 70 miles
pickup @ \$6.51/hr and \$0.16/mi
8 hrs x \$6.51/hr + 70 mi x \$0.16/mi = \$63

sub total \$391

VI. Clean Up

Work will include removal of all equipment and trash.

A. Labor: 2 days 2 labors 2 ea x 16 hrs x \$18.98 = \$607

B. Transportation: 2 round trips @ 70 miles
16 hrs x \$6.52/hr = 2 x 70 mi x \$0.16 = \$127

C. Equipment - Dump truck with driver two days
2 ea x 8 hr x \$(32.33 + 27.35)/hr = \$955

sub total \$1689

VII. Transport

Dozer, Loader and Backhoe one 66 mile round trip each
3 trip x 66 mile x \$1.00/mile = \$594

VIII. Administration

20 % of \$9,600 = \$1,920